

1. A plastic blow molded container having a central vertical axis, comprising:

an upper rim including a top surface having a planar inner edge, an outer edge, and an inner radial edge;

an oriented neck portion depending from said upper rim, said neck portion including a means to receive a closure;

a lower body portion depending from the neck portion; and

a closed base portion depending from the lower body portion;

wherein the lowermost surfaces of the closed base lie in a horizontal plane normal to the central vertical axis of the container, whereby the container may be supported on a horizontal surface in an upright position; and

further wherein the inner edge of the top surface of the upper rim forms a plane which is substantially parallel to the horizontal plane formed by the lowermost surfaces of the closed base.

2. The container of claim 1, wherein the plane formed by the inner edge of the top surface of the upper rim is substantially perpendicular to the vertical axis of the container.

3. The container of claim 1, wherein inner radial edge forms a plane that is substantially perpendicular to the plane formed by the inner edge of the top surface of the upper rim.

4. The container of claim 1, wherein, when taken in longitudinal cross section, the vertical line formed by the outermost axial points of the means to receive a closure is substantially parallel to the central vertical axis of the container.

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5. The container of claim 1, wherein the outer edge of the upper rim is rolled.

6. The container of claim 1, wherein a portion of the outer edge of the upper rim extends down and inwardly toward the neck of the container.

7. The container of claim 1, wherein the container is multilayered.

8. The container of claim 7, wherein the container includes a barrier material.

9. The container of claim 1, wherein the means to receive a closure includes a threaded portion.

10. The container of claim 1, wherein at least a portion of the upper rim has been heat-treated to impart additional crystallization subsequent to its formation.

11. The container of claim 1, wherein at least a portion of the upper rim is mechanically finished.

12. A method for making a blow molded plastic container, the method comprising:

(a) providing a sheet of thermoplastic material;

(b) securing at least a portion of the sheet;

(c) providing a mold having a mold surface;

(d) forming at least a portion of the sheet against the mold surface to shape a preform having an upper rim-forming portion;

(e) separating the preform having an upper rim-forming portion from the sheet;

(f) blow molding the preform to form a container having a central vertical axis, an oriented neck portion and an upper rim including a planar inner edge, an outer edge, and an inner radial edge; and

5 (g) mechanically forming at least a portion of the outer edge of the upper rim to provide additional strength and rigidity.

13. The method of claim 12, wherein the blow molded container further includes a means to accept a closure.

10 14. The method of claim 13, wherein said means to accept a closure is oriented.

15 15. The method of claim 13, wherein said means to accept a closure includes a threaded portion.

16. The method of claim 12, wherein the upper rim-forming portion of the preform is secured prior to blow molding the container.

20 17. The method of claim 12, wherein the plane formed by the inner edge of the upper rim is substantially perpendicular to the central vertical axis of the container.

18. The method of claim 12, wherein the plane formed by the inner edge is substantially perpendicular to the plane formed by the inner radial edge.

25 19. The method of claim 12, including the additional step of heat-treating at least a portion of the mechanically formed upper rim to impart an additional level of crystallization.

30 20. The method of claim 12, including the step of mechanically finishing at least a portion of the top surface of the upper rim.

21. A method for making a blow molded plastic container, the method  
5 comprising:

(a) providing a plastic preform;

10 (b) blow molding the preform to form an intermediate article having a central  
vertical axis; an upper discard portion; an upper rim having a planar inner  
edge, an outer edge, and an inner radial edge; an oriented neck portion, a  
lower body portion, and a closed base portion;

15 (c) removing the upper discard portion from the intermediate article; and

(d) mechanically forming at least a portion of the outer edge of the upper rim to  
provide additional strength and rigidity.

20 22. The method of claim 21, wherein the neck portion includes a means to  
accept a closure.

23. The method of claim 22, wherein said means to accept a closure is  
oriented.

25 24. The method of claim 22, wherein said means to accept a closure includes  
a threaded portion.

25. The method of claim 21, wherein the plane formed by the inner edge of  
the upper rim is substantially perpendicular to the plane formed by the inner radial edge.

30 26. The method of claim 21, including the step of heat-treating at least a  
portion of the mechanically-formed upper rim to impart additional crystallization.

27. The method of claim 21, including the step of mechanically finishing at least a portion of the top surface of the upper rim.

5 28. A preform for forming a blow molded container having a central vertical axis, comprising:

an upper rim, including a top surface having a planar inner edge, an outer edge, and an inner radial edge;

10 an oriented neck portion depending from said upper rim, said neck portion including a means to receive a closure;

a lower body portion depending from the neck portion; and

5 a closed bottom portion depending from the lower body portion;

20 wherein the plane formed by the inner edge of the top surface of the upper rim is substantially perpendicular to the central vertical axis of the preform; and

25 further wherein the plane formed by the inner radial edge of the upper rim is substantially perpendicular to the plane formed by the inner edge of the top surface of the upper rim.

29. An intermediate article for forming a blow molded container having a central vertical axis, comprising:

30 an upper rim, including a top surface having a planar inner edge, an outer edge, and an inner radial edge;

an oriented neck portion depending from said upper rim, said neck portion including a means to receive a closure and a stepped-in portion;

a lower body portion depending from the neck portion; and

a closed bottom portion depending from the lower body portion;

5                    wherein the plane formed by the inner edge of the top surface of the  
upper rim is substantially perpendicular to the central vertical axis of the preform;  
and

10 further wherein the plane formed by the inner radial edge of the upper rim is substantially perpendicular to the plane formed by the inner edge of the top surface of the upper rim.

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